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ABSTRACT

In this publication, the authors suggest that the findings reported are sufficiently well supported by evidence to act as useful guides, even if tentatively. The central purpose of the program was to develop a theory and technology for structural and cultural change within the public schools. The program deliberately emphasized both formative and summative evaluations and tried especially to come up with findings that would be helpful to educational practitioners. Along with findings that are of interest to school people and school consultants, the publication also lists findings of interest to other consultants, researchers, and research methodologists. (Author/DN)

STRATEGIES OF

Organizational Change

PROGRAM

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FINDINGS FROM THE RESEARCH AND DEVELOPMENT PROGRAM ON STRATEGIES OF ORGANIZATIONAL CHANGE AT CEPM-CASEA

by

Philip J. Runkel and Richard A. Schmuck
September, 1974

Seven years of work, even in a small R&D program, can yield a considerable number of findings and many reports. The report of our first project (Schmuck, Runkel, and Langmeyer, 1969) was published in the Journal of Applied Behavioral Science and won the Douglas McGregor award for that year. The program on Strategies of Organizational Change at CEPM-CASEA* has continued its experimental interventions in schools since then, and has

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* The Center for the Advanced Study of Educational Administration (CASEA) is now the R&D division of the Center for Educational Policy and Management (CEPM) at the University of Oregon. CASEA has been supported in part by funds from the National Institute of Education (NIE). Points of view or opinions stated here do not necessarily represent official NIE position or policy. A bibliography of the Program can be obtained from the authors.

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reported elsewhere the findings from a number of projects. This article brings together, in very brief form, the conclusions that we think are sufficiently well supported by the evidence from our several projects to serve as guides to practice, even if tentatively.

In June of 1967, we commenced a series of research and development projects to test the efficacy of various approaches to consultation in organization development (OD) for schools. Our central purpose was to develop a

theory and technology for structural and cultural change within the public schools. We hoped particularly to build intervention strategies that would help to change both the programmatic and the behavioral regularities of school organizations. To pursue these ends, we have collected evidence regarding alternative organizational procedures a school can use, and we have tested the effectiveness of many consultative techniques for helping a school move into an innovative manner of functioning. Typically, our program has sought to help educators to move in two directions: toward greater effectiveness in carrying out interdependent tasks and toward the better realization of humanistic goals for staff, students, and community.

In the main part of the program, that part supported by federal funds, we have conducted experimental interventions of varying scope in a dozen or so elementary schools, two junior high schools, and two high schools, as well as two interventions to produce district-wide effects. In most of these experimental interventions, our purpose was to teach the client-system (whether a committee, team, department, school, or district) methods of moving into change that would cause minimum disruption, maximize the likelihood of success, and permit assessment of goal-achievement. From the viewpoint of research, our purpose always has been more to study change and transition than to study the virtues of any particular new structure in itself. Accordingly, we have generally accepted whatever educational goal the school or district has set itself or any goal--within the bounds of our own ethics--that emerged during the change process. Sometimes, however, schools with which we worked did decide to try to bring into being some particular new structure. Our largest project of this sort was one in which we gave focussed aid to six elementary

schools in which each staff had declared that it wanted to convert a traditional school structure to differentiated staffing and team teaching.

In addition to the main line of work of our program, and usually with funds from the school districts, we have conducted pilot studies in perhaps a dozen other elementary and secondary schools and with several groups of district administrators; these interventions have typically been smaller in scope than those conducted with federal funds. In addition, our graduate students and other colleagues with whom we periodically correspond have conducted interventions of varying scope in several near-by districts in Oregon, Washington, and California, in Opelika (Alabama), in Chicago, in the Cincinnati area, in Boston, in the Denver area, in New York State, in Toronto (Ontario)--and no doubt in various other locations of which we have not yet heard. Further, we have compared notes with other school interventionists at conferences in various parts of the United States, Canada, Portugal, France, Holland, and England, and with our colleagues in other programs within CASEA. As well as conducting experimental interventions and studying the interventions of others, we have also collected data for comparison purposes from dozens of other schools located in Oregon, Washington, California, Florida, Wisconsin, New Jersey, New York, and Pennsylvania. We draw upon all this experience in presenting the findings summarized in this paper; but as documentation, we shall cite here primarily the research analyses that have issued from our program and from other programs within CASEA.

Our interventions have made heavy use of those methods of organization development (OD) that first arose in industrial practice in the United States during the 1950s. We have made numerous modifications of those practices

to suit the educational setting. Most schools are much smaller than most of the industrial firms in which OD projects have been mounted in the past. Schools do not have very clear or agreed-upon "outputs." The problems that beset them are extremely complex and do not have clear criteria by which they can be known to be resolved. We have added techniques and sequence-designs to older practice, and we have rejected certain older practices that we found did not work.

Our efforts were aided in 1970 by a systematic search by Richard Schmuck and Matthew Miles for all the available research on OD in schools. Schmuck and Miles (1971) concluded that the few schools that had attempted to bring their human resources together into a more creative synergy had often failed because they lacked a well-organized conceptualization and a workable strategy for action. According to their argument, consultation in organization development (OD) offered such a conceptualization and strategy. Their review of the research on OD in schools gave some reason to be optimistic. But many of the studies they described were general summative evaluations and offered little specific procedural help for school people and consultants.

In our program, we have deliberately emphasized both formative and summative evaluations and have especially tried to come up with findings that would be helpful to educational practitioners. This paper summarizes many of these findings. Along with findings that are of interest to school people and to school consultants concerned in facilitating school change, we shall list findings of interest to other consultants, to researchers, and to research methodologists. We write, however, with educational practitioners and school consultants primarily in mind.

Some of the findings we list below are supported by substantial evidence drawn from many schools and documented in detail. Other findings have been supported only by our observations in one or two schools, though in ways we believe cogent. We shall not take space in this paper to indicate the nature of the evidential support. Usually, however, those findings accompanied by immediate citation of other analyses are those for which the most detailed evidence is available.

Findings For School People and Consultants

By now there is a considerable amount of scientific evidence to show that consultation in organization development can be an effective educational change strategy. Ample evidence indicates that a school with some small degree of readiness for OD can expect to make considerable modifications in its structure and improve its ability to use its own resources after about a year during which between 80 and 160 hours of staff time are spent in OD work. Readiness to benefit from OD is heightened by the support of central authorities, the willingness of the principal to try OD, staff members' interest in increased collaboration with colleagues, their willingness to undergo some extra effort, and their support of individual differences in the faculty. In fact, when these readiness conditions are high, as little as 40 to 80 hours of OD spread over a two-year period can have very beneficial effects.

The results of our field experiments indicate a number of ways in which OD can improve the organizational functioning of schools. For example, OD helps faculties become more open and skillful in interpersonal communication, more helpful toward one another, and more willing to take risks in trying out new ideas. OD consultation has often improved "smaller" processes

such as the conduct of faculty meetings; it has also been shown to have larger effects such as increasing the number of useful innovations attempted within a school. Moreover, OD can facilitate collegial relationships. As a result of OD, teachers have been shown to perceive their principal as making better decisions, producing more effective solutions to problems, and as acting in more helpful ways toward teachers in general. OD can also make the school more attractive to teachers, especially in terms of the support they feel from other teachers. A few studies have indicated that, because of OD, teachers have adopted communicative styles that encourage more initiative from students and generate more favorable attitudes toward school on the part of the students.

Although consultation in organization development can be effective strategy for school improvement, it is also true that OD can be implemented very ineffectively. Our research indicates, for example, that the seeds of success or failure are often planted during the "entry" phase of the consultation. At the very beginning, it is crucial that the OD consultant establish a clear, supportive, and collaborative relationship with the key authorities in the school. After that, introductory demonstrations and contract-building sessions should occur with all participants before formal training is launched. Important topics should be communicated in graphic and experiential ways: examples are communication, goal-setting, problem-solving, decision-making, and the amount of time the consultation will require from participants. We also have found that discussion during entry should include reflections on the interpersonal perceptions, feelings, and motivations of the consultants and the clients.

Our field experiments have also indicated that clients should be told early that a formal diagnosis will precede significant involvement in the consultation. The diagnosis itself should communicate to the faculty the central variables in OD. The OD consultant must firmly hold to collecting diagnostic data in the "here and now" so that the consultative designs can be developed for the here-and-now. While diagnosis is proceeding, clients and consultants should be establishing increased trust and rapport, and they should be finding ways of improving the group and organizational processes of the client system. Diagnostic procedures, when put in the framework of data feedback and action research paradigms, represent OD consultation in the microcosm.

To design OD interventions effectively, the consultant should keep in mind intervention objectives, the goals of the macro-designs and micro-designs, and also his or her motives, knowledge, and skills. In our experience, OD consultants (including ourselves) must consciously strive not to allow personal motives, knowledge, or preferred skills to carry full weight in determining the conduct of an OD intervention.

We turn now to a more specific listing. Below, we shall organize the key findings of this section under the following headings: (1) entry, (2) diagnosis, (3) transition, and (4) maintenance.

Entry

Outside consultants and innovators often attempt to commence structural change too soon. We have found that a year is a reasonable time to allow for the entry stage of an organizational change program. If a school staff is not given repeated occasions to develop an understanding of what

it is getting into and if time is not allowed for almost everyone on the staff to come to a feeling of "let's give it a trial," the decision to make the trial will have to be recycled later, and the decision at that time is quite likely to be unfavorable. Smith (1972) has provided positive evidence, and Smith (1972), Starling (1973), and Wacaster (1973) have provided negative evidence.*

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* By positive evidence, we mean instances in which the favorable condition (careful entry with increasing understanding on the part of the staff) was accompanied by the favorable outcome (continuation of the developmental work until the new norms became productive); by negative evidence, we mean instances in which the unfavorable condition (inadequate entry process) was accompanied by the unfavorable outcome(withdrawal from the project before any gain could be realized). We are not using negative evidence to mean lack of evidence or evidence contrary to the hypothesis.

Some cases will illustrate the importance of making careful entry. The first contact in our so-called Kent Project occurred in August of 1967. Discussions with numerous groups, negotiations, and establishing a liasion committee took until April of 1968, when we staged our first actual demonstration of some procedures of organization development for some 50 key members of the district. The first serious and formal training took place in September of 1968, a year after the first contacts were made. First contacts for our Multiunit Project occurred irregularly throughout 1969. A series of discussions and negotiations with a number of school faculties went on throughout the spring of 1970, but actual training did not begin until August, 1970. First contacts with the superintendent at Berkeley occurred in 1970. More specific negotiations developed in the fall of 1972, and the first actual demonstration of OD procedures for some 45 key members of the district occurred in May of 1973. A similar demonstration for the faculty of the first school in Berkeley took place in August of 1973. In all these cases, the client

needed time not only to communicate with us, but also to communicate with others about us.

Of course, entry processes will take a longer or shorter time depending on the readiness of the client system. Fortunately for us, the junior high school in which we conducted our first major project (see Schmuck and Runkel, 1970) had reached a moderately high state of readiness before our appearance. The faculty had carried on discussions that brought to wide visibility the clusterings of agreement the faculty contained about problems that needed urgent work, and the principal had made it clear to all that he was willing to change along with the staff. It was at that point that the principal sought the help of outside consultants.

Implications for further research. Although we have become convinced that a too-precipitous entry invites disaster, and although we have discovered some important indicators of readiness (see the section on diagnosis below), we also believe that we should seek further indicators. Perhaps more urgently, we need quick and unobtrusive methods of ascertaining minimally adequate levels of the indicators we have already found to be important. Especially when beginning negotiations with a client system that does, indeed, have low readiness for change in organizational process or structure, members are more likely to hide the information the intervener needs than to reveal it. Questionnaires and interviews at such a juncture, no matter how cleverly worded, are more likely to yield protective and "socially desirable" responses than to yield the information about readiness (or lack of it) that the intervener needs. At present, as we employ conversations, interviews, questionnaires, and participation in various sorts of meetings during entry, we put together all this

information into a diagnosis of readiness partly by straining it through a net of theory, but also by interpolating from previous experience and by sheer intuition. We need to develop a systematized procedure, or at least a checklist, to guide the entry process, and we need simpler methods of evaluating readiness.

Some schools have a low level of readiness because of a history of one "innovation" after another that has failed to produce rewarding outcomes, and this leads to a discouraged and embittered attitude toward any proposed change and to a determination not to commit energy to it, no matter what its advocates may promise. We need to develop methods of increasing readiness for change in schools where readiness is low.

It is important to be explicit here about our own values. Along with our program-associates at CASEA, we believe that most existing schools fail to make use of enough of the abilities of their staff, students, and parents. Nevertheless, we are always on the alert for the client system that may already be making excellent use of its human resources. Such a school or district should be allowed to reject importunities to change. There is also the matter of timing. Sometimes, part way in, members of a school faculty come to the conclusion that they are attempting change inopportunely. In such a case, we can only accept the client's decision; for instances, see Smith (1972) and Starling (1973).

Diagnosis

OD consultants must have detailed scientific information on which to base their intervention designs; gathering systematic data about a school's facilitative or debilitating dynamics is vital to effective action. Our diagnostic work within our R & D program leads us to emphasize

the following points.

Subsystems. We believe that the successes in our work are very largely due to our insistence upon bringing entire subsystems into the consultation, though it is true that we also find it useful in many cases to provide special coaching for key members, such as a team leader or a principal. Even in this special coaching, however, our purpose is to improve the leader's functioning as a component of the subsystem.

When an intervention in one or two schools is followed by some desired outcomes, the evidence is sometimes too thin (because of having only one or two cases) or too complex (because of all the variables operating), or both, to give us great confidence that consulting solely with subsystems was necessary to the outcome. When we also find, however, that failure to work with subsystems in other schools is followed by aborted projects, the evidence for the necessity of focusing the intervention on subsystems becomes more persuasive. In several cases (see Smith, 1972 and Starling, 1973) where schools gave up the effort to achieve new organizational structures, we found evidence afterward that we had been mistaken about the subsystem character of the groups we had chosen for training (for the nature of subsystems, see, for example, Buckley, 1967).

Support from administrators. Consultation in organization development is more likely to have beneficial effects if members of the district office support the school in pursuing its own leads, or at least are permissive toward it. Wyant (1972, 1973) has described how the activities of a cadre of organizational specialists were affected by the superintendent's beliefs about their chief kind of usefulness. Wacaster

(1973) has described how the dwindling support of the central office undermined an innovation in a senior high school.

It is the rare principal who can bring about altered organizational norms or major structure without aid from his or her subordinates, but any principal can scuttle a project without help from others. If the principal falters in his or her support of the project or vacillates in his or her efforts to learn the behavior that fits the new norms, the staff members will be more likely than otherwise to falter in their own efforts. Murray (1973), Smith (1972), Starling (1973), and Wacaster (1973) have given negative evidence. Smith (1972) has presented positive evidence.

Variety pool. Consultation in organization development is more likely to have beneficial effects if most participants are willing to expose job-related disagreements (unusual and even discombobulating ideas) to one another. Saturen (1972) and Smith (1972) give positive and negative evidence. (In our own technical language borrowed from Buckley, 1967, the staff must exhibit an active "variety pool.")

Collaboration. Consultation in OD is more likely to have beneficial effects in a school if the desire for collaborative work is widespread among staff members. Positive evidence has been given by Murray (1973), Saturen (1972), and Smith (1972); negative evidence by Jones (1973), Murray (1973), Saturen (1972), Smith (1972), Smith and Keith (1971), Starling (1973), and Wacaster (1973).

Variety pool and collaboration. Consultation in OD is more likely to have beneficial effects in a school if the staff's expectations, at the outset, support both open communication about job-related emotions and disagreements and job-related collaboration (see Saturen, 1972 and Smith, 1972). If pre-existing expectations of the staff in a school support

open communication, but the skills of the staff for bringing conflict to the surface and coping with it are low, then moving into collaborative work, whether aided by OD or not, is premature and can have deleterious effects (see Saturen, 1972).

Consensus on the innovation. OD is more likely to help a school achieve an innovation if the decision to move into innovation is almost consensual. Positive evidence has been given by Murray (1973) and Smith (1972); negative evidence by Jones (1973), Murray (1973), Smith (1972), Smith and Keith (1971), Starling (1973), and Wacaster (1973).

Goals. OD is more likely to help a school convert from a self-contained structure to team teaching, differential staffing, multiunit structure, or the like, when the staff has high agreement at the outset upon educational goals relevant to the new structure. See Murray (1973) and Smith (1972) for positive and negative evidence.

Implications for further research. We already have made some recommendations about the need for improved diagnostic techniques. Similarly, the technology of finding subsystems needs improving. We have been notably successful in building new subsystems; but our interventions have been less successful in developing a quick and valid way of finding existing subsystems. Some are simple to delimit, such as the obvious classroom group or the superintendent's advisory cabinet. Much work in schools, however, gets done by groups that do not appear on any organizational chart or do not even arise in anyone's consciousness. We recently found ourselves challenged by finding the working subsystems in the Berkeley school district, where the formal organization is in constant

flux and working relations are complicated by a multitude of sub-cultures brought about by ethnic differences, previous innovative efforts, and historical happenstance.

Transition

Speaking over-simply, an organizational change effort can be divided into a transition period during which new norms and structures are being built and a maintenance period during which the new organizational processes become institutionalized. The following sub-points have to do with our program findings about the transition period.

Amount of consultation required. Judging from outcomes in various client systems, a school showing appropriate conditions of readiness can expect to be able to make major changes in its structure and improve its ability to use its own resources to an important degree after a year during which about 160 hours of staff time are spent in direct OD work. Usually, this amount of time is best split into about 40 to 80 hours before school opens and the remainder scattered over various occasions during the school year. Much of the work during the school year does double duty: accomplishing the actual work of the school and practicing OD methods. This judgment about the amount of time needed comes from work reported by Essig (1971), Gentry (1971), Murray (1973), Nelson (1971), Phelps and Arends (1973), Runkel (1973), Saturen (1972), Schmuck and Runkel (1970), Smith (1972), Starling (1973), and Wyant (1974). More evidence will be presented in forthcoming papers.

Wyant (1974), after studying a large number of faculties that had received various amounts of OD consultation, found that staffs receiving less than 24 hours of OD help actually declined in their commun-

icative adequacy. Apparently, the first two or three days of training in communication skills and problem-solving can have detrimental effects. Probably the new skills and new openness bring to light problems and stresses that require, for their resolution, norms of disciplined and persevering work in relevant subsystems -- norms that cannot be built in two or three days. On the other hand, one school, newly established when the OD consultation began, exhibited very strong self-renewing characteristics after only 46 hours of OD spread over a two-year period, and other schools have shown some beneficial changes after even less consultation (see Phelps, 1973; Runkel, 1973; and Saturen, 1972). But, 24 hours or so do appear to be a dangerously low number of hours of OD consultation.

Amount of time required from school staff. A staff involved in an important organizational change must expect to spend more time in meetings than usual during the transition. Smith (1972) tallied the reports from staff in a school that successfully converted its structure to multiunit structure and from staff in a school that withdrew from such a project. Before the OD consultation, the staff in the school that successfully converted its structure spent an average of about 3¼ hours per week in meetings; during the transition year, this rose to 5⅓ hours. In the other school, the pre-existing average of 2¼ hours per week stayed at the same level during the intervention year. These figures are means of estimates that each staff member gave of the time he or she spent in meetings.

Use of consultants. Consultation in OD is more likely to help a school convert from traditional structure to team teaching, differentiated staffing, multiunit structure, or the like when the staff makes frequent, knowledgeable, and active (not passive) use of the outside OD consultants

(Murray, 1973; Smith, 1972; Starling, 1973).

Feedback. OD consultation progresses more effectively, with more effective coordination between parts and less recycling, when diagnostic evidence is fed back frequently to participants. This is necessary both to validate the evidence and to reach a shared perception of the state of readiness of outsiders and insiders for next stages. We mean to include in this statement quick feedback to participants about the progress they are making in developing new skills and consolidating new practices.

Problem solving. OD is more likely to help a school convert from traditional structure to team teaching or the like when the steps of movement into the new structure are chosen to meet particular problems that have emerged in the school, in contrast to being chosen to follow a preconceived intervention sequence composed without regard to the school's particular problems (Murray, 1973; Smith, 1972).

Pacing. Consultation in OD is more likely to help a school convert from traditional structure to team teaching or the like when the formal movement into the new structure is realistically paced by the rise in interpersonal readiness discerned during the consultation (Murray, 1973). If the school tried to make the new structures work before the new interpersonal norms are firm, indicators of the new norms may rise during the first year, but they will drop off in later years.

Choosing leaders. OD is more likely to help a school convert from a traditional structure to team teaching or the like when the new team leaders are chosen by equitable methods; positive evidence is given by Murray (1973), Schmuck and Runkel (1970), and Smith (1972), and negative

evidence by Smith (1972) and Starling (1973). Conversion goes more smoothly, also, when the team leaders succeed in communicating up, down, and laterally with other members of the staff (Murray, 1973).

Continuity of the principal. Consultation in OD progresses more effectively if key leaders (notably the principal) intend to stay with the organization until at least a year after the outside consultants leave. Simons (1974) and Wacaster (1973) both have described instances of what happens when the principal leaves in mid-project. For a similar point, see the item "Support from administrators" under the section on diagnosis above.

Norms of communication. In most of the designs we have researched, the first step in actual consultation has been to help the client subsystem practice norms for communication that demand much more immediate, face-to-face information transmission than is customary and allow much less postponement of information or suppression of it than customary. Strong communicative norms of this sort are necessary to further progress toward the self-renewing capability. If this first step is not firmly made, it will have to be recycled before very long. There is evidence for this conclusion in almost every one of the research reports of the program. For similar points, see "Feedback" and "Pacing" above.

Responsiveness. Our research indicates that the step from planning to action is difficult and crucial -- it is, so to speak, the dividing line between good intentions and realizing a new capability. Of course, pressure to "put up or shut up" can be stirred up, but it seems to be

true that enabling a client to cross this watershed calls upon the best design skills of the OD consultant. An OD intervention moves the organization more surely toward the self-renewing capability if responsiveness is practiced as early in the sequence as is compatible with proper pacing and with acquisition of the basic norms of open communication. Evidence for the latter statement has been presented by Murray (1973) and Smith (1972).

Conflict. A school that deals purposefully, actively, and confrontively with conflict during a transition to a new structure is the more likely to achieve and stabilize the new structure. Positive and negative evidence has been given by Murray (1973) and Smith (1972).

Pain. Significant effort toward organizational change will seem painful to many, regardless of whether the change becomes stabilized or dissipates. Evidence has been described by Murray (1973), Smith (1972), and Starling (1973). Runkel (1974) has expanded the thesis that pain is an inevitable accompaniment of change, and that an organization can choose the kind of pain it wants to pay as the price for certain kinds of change or non-change.

Implications for further research. A question we are often asked by school people who are considering whether to make use of OD consultation is: "Suppose we can't afford to pay for 160 hours of staff and consultant time, or suppose our school is pretty low on readiness for change through OD. Is there any 'package' smaller than self-renewal that's worth buying?" The best short answer is, "Yes, but don't expect miracles."

In our Handbook (Schmuck, Runkel, Saturen, Martell, and Derr, 1972) we present a partially ordered array of skills, interpersonal and organizational, and hypothesize that certain of these will be acquired badly, if at all, unless certain others are mastered earlier. Except in cases of low readiness, the skills of interpersonal face-to-face communication seem to be basic. A useful increase in effectiveness of communication (a "smaller package" that seems to us worth buying) can be established with 30 to 40 hours of practice on the part of all or most of the staff if a moderate level of trust and at least some desire for collaboration exists. But this training must be followed up with problem-solving and taking new action if organizational change is expected. (See also the remarks under "Amount of consultation required" under "Transition" above.)

When readiness is too low, however, we do not currently have any answer to the question of a "smaller package." When the readiness of a school is so low that members are unwilling to risk a few hours to try some possibly useful new communicative skills, our present techniques of diagnosis cannot specify any starting place. Studying the local situation diligently, pooling the inventiveness of our intervention team, and falling back on sheer persistence is our best recourse. We are even less clear about making entry with unorganized and unready collections of students or parents. We need to carry out a series of lengthy projects with a variety of client systems that have low readiness to discover the better bets among methods of entry and sequences of consultation.

In addition to developing more designs to suit varying conditions of readiness, there are other contents of our theory and technology of change that need developing. Among the techniques and procedures that would certainly reward further detailing are these: survey-data feedback, the group problem-solving sequence, micro-designs for taking action steps, and ways of reaching and stabilizing new norms during strong conflict.

Maintenance

Enough time has now gone by in the history of our program so that cases now exist where the fruits of our interventions can still be seen some years after our departure, as well as some cases where they have disappeared. Analyses have been made, most of them based on quantitative data, to help us learn some of the conditions that make for stability of new modes of organizational structure and process and some of the conditions that vitiate change efforts.

Some of the conditions and methods that enable OD consultation to progress effectively are also, when they are institutionalized, conditions and methods that help a school or district to maintain a changed mode of operating. In our summary of findings about the transition stage, we mentioned the problem-solving orientation, new norms for communication, responsiveness (taking action), and feedback about progress. The evidence cited above indicates that these capacities will help maintain new modes of operation as well as help produce the general self-renewing capacity.

We can also offer findings about a very important organizational subsystem that can be a great aid to maintaining organizational innovation.

In the school districts where we have carried out our research and development, the district offices usually have been unable to provide significant support for organizational change, even with the best of intentions on the part of the superintendent. Like most human organizations, the norms and resources of the typical school district are more ready to reward stability than change. Because of this lack of know-how for supporting innovation, we have invented a special sort of subsystem that we call a Cadre of Organizational Specialists.

Our experience with cadres in two school districts indicates that they can be built by OD methods and that they can maintain themselves and provide effective OD consultation to the district, calling upon outside help only at their own initiative. The first cadre has now been operating for five years and has survived a series of severe threats to its existence. The second has been operating for three years. For histories of the two cadres and evidence of continuing relevant activity, see Arends and Phelps (1973), Macbeth (1971), Schmuck (1971), Schmuck and Runkel (1972), Schmuck, Runkel and Blondino (1970), and Wyant (1972, 1973). The functions a cadre can effectively perform, ways of recruiting for a cadre, content of training for it, and methods of maintaining it have been detailed by Arends and Phelps (1973).

Findings For Consultants and Researchers

Our findings in this section are presented under the headings (1) effects of OD and (2) some controversies.

Effects of OD

There is evidence in our research and in the analyses of others that OD methods (properly chosen, sequenced, and applied) can increase a school's spontaneous production of structures to meet internal and external challenges, improve (even indirectly) the relationship between teachers and students, improve the responsiveness and creativity of staff, heighten the influence of the principal without reducing the influence of the staff (and vice versa), expand the participation of teachers and students in the management of the school, and alter attitudes and other morale factors toward more harmonious and helpful expectations.

Structural outcomes. In many cases where a school's effort to establish an innovative structure has been accompanied by consultation in OD, it has been obvious to impartial observers (as well as to the participants themselves) that the OD consultation helped the innovation to achieve maturity. We mention evidence below, chiefly in connection with efforts to establish differentiated staffing, team teaching, multiunit structure, and the like, that structural innovation has often failed when not carried through the transition period by OD methods, and that it has sometimes succeeded when OD methods were used. Nevertheless, it is hardly ever easy to understand in advance when a school will not need OD consultation to carry an innovation through successfully, and it certainly is not easy to tell in advance the particular amount, kind, and sequencing of consultation that will be most efficient in a particular case. We do now have some methods of diagnosis to ascertain general readiness for structural change, but more research is needed to elucidate

the connections between levels and types of readiness, different designs for consultation, different sequences in installing the parts of a new structure, and the various possible outcomes. In the meantime, we can state some tentative findings and cite the evidence that exists so far in our program and from the research of others.

Schools that have received OD consultation, compared to those that have not, are more likely to devise new organizational sub-structures to meet special needs; for examples, see Essig and Kennel (1972), Essig, Tompkins, and Rutter (1971), Schmuck and Runkel (1970, pp. 81, 84, 99), Phelps and Arends (1973), and Tompkins, Seeberger, Winger, Dunn, Essig, and Rutter (1971). Included in these writings are accounts of a new sort of advisory committee for a junior high school principal, a way of reorganizing the first two weeks of the first grade to cope with differences in readiness among young students entering school for the first time, a specially tailored learning center for an elementary school, new sub-structures within a PTA to improve speed and accuracy of information exchange between staff and parents, and others.

A school can learn to marshal its resources with sharper focus and greater commitment than is ordinary, thereby working more efficiently either to adopt a suitable innovation or to jettison an inappropriate one. If a school is to achieve this sort of capability, our research indicates that it must deal purposefully and actively with conflict during the transition to the new structure (see Smith, 1972 and Murray, 1973). And OD consultation for school staffs can enhance the capabilities of a school to deal effectively with conflict and innovations of complex sorts.

In one district, an elementary school that received only about 46 hours of OD consultation has consistently outdistanced its fellow elementary schools in handling internal conflict, in stablizing team teaching (see Runkel, 1973) and in exhibiting various indices of self-renewing capacity (see Saturen, 1972).

In one of our projects, six elementary schools received OD consultation designed to help them realize their expressed intention of converting from the traditional structure of the self-contained classroom to differentiated staffing with multiunit structure (for a description of the latter, see Klausmeier and Pellegrin, 1972). Three of the six succeeded (using criteria of success well beyond diagrams on paper or the pronouncements of officials) in stabilizing the new structure. Two withdrew from the intervention after about four months. The sixth school remained in the project and obtained certain benefits, though it did not reach the criteria we required to proclaim it as having achieved differentiated staffing and multiunit structure.

This rate of success -- something over 50% -- is not bad, considering the large number of failures currently being reported in the literature. For examples of the usual lugubrious story, see Charters and Pellegrin (1972), Charters et al. (1973), Smith and Keith (1971), Starling (1973), and Packard (1973); we also recommend the theoretical point of view taken by Lighthall (1973) in his comments on Smith and Keith. Evidence and detail concerning the outcomes in the schools of our project can be found in the reports by Arends and Essig (1972), Essig (1971), Saturen (1972), Smith (1972), and Starling (1973), and in

a forthcoming monograph by Schmuck, Murray, Smith, Schwartz, and Runkel (in press). Evidence from schools other than those in this project also indicates that schools with OD consultation show greater use of collaborative teaching arrangements (see Phelps, 1973 and Runkel, 1973) and are more likely to have regular meetings of the teaching teams. (see Wyant, 1974).

We should pause here to say that we do not think that all school staffs will benefit from every innovation urged upon them, whether team teaching or anything else. Nor do we believe that a decision by a school to stop its efforts toward an innovation is necessarily a "failure" of the change project. From the point of view of the school, the decision may feel like a success -- a successful effort to ward off an unwanted change. From one point of view, therefore, the two schools that discovered, in four months' time, that they really did not want differentiated staffing could be counted as cases where the schools succeeded in getting rid of outside pressures toward change in a relatively short period instead of struggling to do so over a period of a year or two through the usual techniques of slowdown and deception (compare, for example, Wacaster, 1973). However, reports on innovative attempts tend to concentrate on what the outside change-agents want, and usually give too little information about the ability of a staff to be clear about what it wants and to take steps toward that. Correspondingly, and perhaps wrong-headedly, we have reported our "success rate" as containing only those schools that did move past the criteria we set for achieving the new structure, and have ignored for present purposes the profitable aspects of the consultation in the schools that withdrew. This point is

discussed more fully by Lighthall (1973) and by Runkel (1973).

Facilitating processes. Aside from helping to establish new structures, OD consultation can also facilitate continuing efforts and long-standing goals. For example, Essig (1971) has presented some evidence that schools that have received OD consultation, compared with those that have not, are more likely to work out techniques for reducing the adult-student ratio for certain kinds of instruction. Moreover, OD consultation can improve the clarity of new norms and hasten the development of trust in desegregating schools (see Gentry, 1971).

Research indicates that OD consultation given to a faculty usually has spill-over effects on the relations between teachers and students. We have already mentioned the special arrangements a single school worked out to welcome first graders (Tompkins et al., 1971). Bigelow (1971) reported a rise in student-initiated communication and improvement in the expectations of helpfulness of students toward one another in the classrooms of junior high school. Snyder and Runkel (1973) have compared these spill-over effects with the effects of directly training teachers in coding teacher-pupil interaction using Flanders' categories. Essig (1971) and Saturen (1972) give evidence that students are perceived by teachers as participating more in planning their educational program after the school has received OD consultation. Each of these studies presented both positive and negative evidence. Finally, a study conducted by Favors (1971), independently of our program, showed that more collaborative interaction among staff, parents, and students, reflecting a joint-solving attitude (rather than embattled one), resulted

in a new, helpful relationship between school and student which, in turn, produced dramatic gains in the mean scores on standardized achievement tests.

Staffs of schools that receive OD consultation are likely to increase their participation in planning the school's curriculum; see Arends and Essig (1972, Report No. 5), Essig (1971), Phelps and Arends (1973), Saturen (1972), and Schmuck and Runkel (1970, pp 84-85, 100-101). Of these, Essig, Saturen, and Schmuck and Runkel present both positive and negative evidence. Moreover, one school studied by Essig (1971) that had received OD consultation succeeded in eliminating the practice of grouping by ability, while other schools in the district did not. And our research indicates that training in collegial supervision (in which teachers observe one another, give feedback, and engage in joint problem solving about teaching methods) can enable teachers to give one another more help than otherwise in improving their teaching. This mutual helpfulness is strengthened when embedded in OD consultation for the faculty as a whole; see Nelson, Schwartz, and Schmuck (1973).

A principal of a high school (see Flynn, 1971), applying OD methods almost single-handedly, with only a modest amount of intervention by outsiders, achieved new relations with his staff in communication and decision making, even though his efforts were hampered by forces that do not act as strongly on outside agents.

Training principals for one or two weeks in applied group dynamics (human relations training) has little, if any, effect on the organizational functioning of their schools; this finding, amply documented elsewhere, is supported by two research reports from our

program: Lansky et al. (1969) and Thomas (1970).

Some Controversies

There are several current arguments about what has to come first or what is possible in altering organizations. We offer here some evidence bearing on some of these controversies.

Power as a zero-sum game. There is a common belief that one part of an organization can gain power only at the expense of another part -- that the total amount of power within the organization always remains at zero, so to speak, with some parts having positive amounts and other parts negative amounts. We find that school administrators almost universally believe this to be true, and that a majority of their subordinates believe it also. Lindbloom (1973) has offered some data that deny this assumption.

Devotion to profession versus OD consultation. Many persons have a strong belief that competent performance by an educator is produced by the person's devotion to his or her profession, and that any training the person acquires has its effects simply through enhancing professional competence. Training, the belief goes, "takes" if the person has strong professional motivation, but can have only minor effects if the person is not seeking to enhance his or her professional excellence through the training. Phelps (1973) analyzed some data from our files concerning collaborative work among teachers in deciding upon curricular matters, and found that attraction to the profession (indicated by an item asking for intended length of continuation in the profession) and attraction to the local staff are both weaker in effect on reported collaborative work

than being in a school that has received OD consultation.

Financial support. One tradition in the study of innovation argues that schools and districts cannot successfully mount an innovation unless the budget is sufficient. Nevertheless, we have found in at least one school district that the tightest budget can support innovation if participants are determined and inventive. In our Kent project, a few months after the cadre of organizational specialists had been given initial training and had gone to work, the district suddenly found its available money to be more than ten percent less than it had thought. Despite this severe financial crisis (even necessitating putting some central office personnel into the classroom!), the work of the cadre was not stopped; they were not disbanded. On the contrary, they were called upon to help work through the stresses of the episode. For some of the history of the Kent cadre through this and other difficulties, see Schmuck and Runkel (1972), Schmuck, Runkel, and Blondino (1970), and Wyant (1972, 1973).

Another example occurred in our multiunit project. Two of the schools that made significant movement toward a multiunit structure -- after receiving a form of OD consultation -- did so without extra money from the district. Indeed, in contrast to "less successful" schools in the project, no financial support was available in these two schools for team leaders, aides, or paraprofessionals. For details, see Schmuck, Murray, Smith, Schwartz, and Runkel (in press).

Effects of personality on organizational change. We have often been urged to apply personality measures to participants in our studies, on the grounds that personality shapes the manner in which people

participate in organizational life. However, we have rarely found a participant about whose personality we discovered we needed to know more than we discovered through the normal course of consultation. In other words, we sometimes find ourselves surprised by events we could have predicted better if we had known more about the history or sociology of the school, but never by lack of knowledge a personality inventory could have given us. What the organizational specialist must learn is how particular people in a particular school or district interact this week, and he can get this knowledge faster and more accurately by watching them and interacting with them than by any battery of personality tests. A study by Macbeth (1971) on selecting recruits to be trained in a cadre of organizational specialists gives some support to our view. We believe that it is best to design recruiting methods and the entry process so that applicants and participants have a series of opportunities to select themselves for the kinds of participation that are best suited to their temperaments -- or for no participation at all.

Findings For Researchers and Methodologists

The following points are mostly methodological.

The Routine Year

Since almost every act of teaching or learning in a school takes place against a context of last year's customs and next year's hopes, very few outcomes can be confidently assessed except as they are embedded in the relevant trends. This means that most studies in schools (except studies of very short-term phenomena) that collect data at one or two times over only a year or two must inevitably produce very shaky evidence

and very shaky conclusions. At the very least, a study should collect data (a) before the planned change, and preferably in two or three of the years preceding it, (b) just after the change has presumably been brought about, (c) a year later to see whether the school can maintain the new shape of things on its own, (d) a year after that to see whether the new thing still works when the staff is operating for the first time with a year's experience behind it, and (e) a year after that at the end of the first fully "routine" year. In our Kent project, we succeeded in gathering formal data periodically from 1968 to 1972 and have been kept informed of events in the district since then, but in no project have we succeeded in gathering data over the whole span we have just prescribed as minimal for solid inferences. Nor do we know of anyone else who has done so in this realm of work.

Internal and External Evaluation

Neither internal evaluation nor external evaluation is wholly better than the other. Each has its strengths. Neither one, indeed, can be achieved in all purity. An internal team of consultants can achieve more intimacy, rapport, and trust than the external researchers who show up only when it is time to take data, but even an internal team cannot be seen as wholly ordinary members of the organization, especially when they act in the role of evaluator or investigatory scientist -- as they must for purposes of diagnosis or checking progress. External evaluators can achieve more control over the conditions of data-collection from occasion to occasion to the extent that they are perceived as unconnected with any interveners, but they cannot, for various reasons, be very convincing

about their lack of connection. Despite the difficulties in keeping the two kinds of evaluation separate in the minds of the school people, however, our experience convinces us that both kinds of evaluation can yield more valid data than either one alone.

Change of Expectation after Pretest

We mentioned just above that an outside evaluator, to the extent that he remains a stranger, can maintain relatively similar conditions of data collection from occasion to occasion, because he himself remains similarly perceived from time to time. But this is only relative. The intervention that accompanies the outsider's data collection changes to some extent the respondents' view of the data collection also, no matter by whom it is done. One thing we have learned again and again is that the participants' perception of the consultant and the consultant's data-collection teams changes radically from time to time as the consultation and other experiences with the interveners progress. This makes the "control" provided by a pretest very dubious indeed when it is conducted by people seen to be the consultant's agents -- and we have never succeeded in avoiding this perception. The data cannot be interpreted in the simple way of the standard control-group design, but must be interpreted in the light of evidence about the relationship between consultants and participants and in the light of any other relevant data.

The "detached" evaluator is not often as detached as one's wish for simplicity would have it. Outsiders do become a little better known each time they show up, even though the visits are a year apart. An important thing respondents can learn about the administrators of

questionnaires, for example, is that the worries respondents had earlier about betrayal of confidentiality were needless. In subsequent sessions of answering questionnaires, therefore, at least some respondents answer with more trust that the information they give will be treated confidentially and respectfully. The results of the increased trust can be varied: respondents may tell more about conditions they resent, or tell more of their friendly feeling toward specific other persons in the school, or skip more items(in the confidence they won't get punished), and so on. Even in districts where we were not interveners, but were external evaluators, some of our questionnaire data show ups and downs in response rates from year to year that remain mysterious.

The School that is Already on Its Way to Change

Some people who have doubts that some sort of training can bring about desirable changes in a school sometimes pose the counter-hypothesis that the school was already a "good" school and was probably on its way to getting "better." Consequently, the argument goes, the change or "improvement" shown in one's data could as easily have occurred without any training at all; this up-and-coming school would no doubt have got there on its own.

This argument oversimplifies the complexities of change in school organizations, but we shall leave those defects in the argument to another place. Here, we wish merely to point out that the argument flies in the face of the ubiquitous regression effect, and our four years of data from the Kent project now amply document the fact that regression toward the mean is just as much present in evaluating schools from year

to year as it is in testing individuals from week to week (see, for example, Runkel, 1973). A school that is near the top on any criterion in one year is less likely than other schools to be near the top in the next year, not more likely, unless some unusual circumstance (like relevant OD consultation) has kept it there.

In brief, the counter-argument that the school was already on its way should no longer be defensible merely on evidence that the school was high on something, even if it was high on a relevant quality. This counter-argument can only be cogent if the previous trend was consistent over a series of assessment-occasions and remains unperturbed by the consultation.

Check on All Success Claims

Our experience in looking for outcomes has taught us that they are not simple. They have all sorts of shapes and sizes. Editors of scientific journals and providers of funds should demand detailed documentation when a researcher claims that one or more schools have "installed" or "adopted" some particular new way of doing things. The depth and variety in the ways a new structure such as team teaching can be installed or adopted in a school are stupefying, and so are the ways a principal can cover up with verbiage the fact that the innovation has really not taken hold in his school at all. Statements that go no farther than, "In a school that had adopted team teaching the previous year, ..." or "We shall install team teaching in X schools next year," should never be accepted without skepticism. A similar point has recently been made by Charters and Jones (1973).

Findings beyond those listed in this paper will continue to issue from our program. The projects mentioned in this paper, not to mention others we hope to start, still have much information in them that has not yet seen print.

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